

AMENDMENT TO THE CLAIMS

1. (currently amended): A head suspension assembly comprising:
a suspension portion including a suspension arm;
a head portion coupled to the suspension arm including a ~~slider body having a leading edge, trailing edge and~~
~~opposed sides and~~ one or more transducer elements; and
a magnetic bearing element on the head portion or suspension
portion to form a magnetic bearing assembly in
combination with a conductive element operable to
induce a repulsion force ~~to provide a fly height for~~
~~the head portion of the head suspension assembly.~~
2. (original): The head suspension assembly of claim 1 wherein
the magnetic bearing element includes at least one bearing
magnet.
3. (original): The head suspension assembly of claim 2 wherein
the at least one bearing magnet includes a permanent magnet.
4. (original): The head suspension assembly of claim 2 wherein
the at least one bearing magnet includes an electro-magnet.
5. (currently amended): The head suspension assembly of claim
1 wherein the magnetic bearing element includes bearing magnets
on opposed sides of either a roll axis, a pitch axis or both, of
~~the~~ slider body of the head portion.
6. (currently amended): The head suspension of claim 1 wherein
the magnetic bearing element includes a bearing magnet proximate
to a trailing edge of ~~a~~ the slider body of the head portion spaced
from a pitch axis of the slider body.
7. (cancelled)

8. (previously presented): The head suspension assembly of claim 1 wherein the one or more transducer elements includes a longitudinal recording element.

9. (currently amended): The head suspension assembly of claim 1 wherein the magnetic bearing element includes a conductive element on the head portion or suspension portion.

10. (currently amended): A bearing assembly for a data storage device comprising:

a data storage disc or media having a recording layer and a magnetic bearing element; and

a magnetic bearing element on a slider or suspension portion ~~and~~—and the magnetic bearing elements on the data storage disc or media and the slider or suspension portion including a bearing magnet and a conductive element to provide a repulsion force between the slider or suspension portion and the data storage disc or media.

11. (original): The bearing assembly of claim 10 wherein the bearing magnet is a permanent magnet.

12. (original): The bearing assembly of claim 10 wherein the bearing magnet is an electro-magnet.

13. (currently amended): The bearing assembly of claim 10 wherein the bearing magnet is formed on the slider or suspension portion and the disc or media includes a conductive layer or substrate to form the conductive element.

14. (currently amended): The bearing assembly of claim 10 wherein the conductive element is formed on the slider or the suspension portion and the bearing magnet is formed of a magnetic recording layer on the data storage disc or media.

15. (previously presented): The bearing assembly of claim 10 wherein the slider includes a transducer element having a longitudinal recording element.

16. (original): The bearing assembly of claim 12 including a controller coupled to the electro-magnet to selectively energize the magnetic bearing assembly.

17. (currently amended): The bearing assembly of claim 10 wherein the data storage disc or media includes a magnetic recording layer and the bearing element on the data storage disc or media is the magnetic recording layer.

Claims 18-24 - (Cancelled)

25. (currently amended): The head suspension assembly of claim 1 wherein the magnetic bearing element is on the head portion.

26. (previously presented): The bearing assembly of claim 10 wherein the magnetic bearing element is on the slider.

27. (previously presented): The bearing assembly of claim 10 wherein the magnetic bearing element on the slider or suspension portion includes an inductive coil and further comprising a detector coupled to the inductive coil to measure a voltage or current.

28. (currently amended): The bearing assembly of claim 2710 wherein the slider includes a perpendicular recording element and the magnetic bearing element of the data storage disc or media is a magnetic recording layer.

29. (currently amended): The bearing assembly of claim 2710 wherein the magnetic bearing element on the data storage disc or media is a conductive layer.

30. (currently amended): The bearing assembly of claim 10 wherein the magnetic bearing element on the slider or suspension portion includes an electro-magnet and further comprising a controller configured to energize the electro-magnet prior to rotation of the data storage disc or media.

31. (currently amended): A magnetic bearing element on a slider or head orientated to provide a repulsion force relative to a conductive layer or magnetic bearing element ~~of on~~ a data storage disc or media ~~via rotation of the slider relative to the data storage disc.~~

32. (previously presented): An assembly comprising:

- an electro-magnetic element on a slider or head suspension; and
- a detector coupled to the electro-magnetic element on the slider or head suspension configured to measure voltage or current to detect vibration or fly height.